



# KV4.0 – The digital data hub for combined transport

The new TSI Telematics: Impacts on intermodal transport

Frankfurt, 12.12.2024



# Starting situation

The complexity of intermodal supply chains is one of the biggest competitive disadvantages of combined transport compared to continuous road freight transport



Many electronic data interfaces (Terminals, LSP, RU, etc.)

Elaborated organization of intermodal transports

Digital standalone solutions of the parties involved



Complex end-to-end information chain

# Objectives

Common data hub for the exchange of timetable, bookings and shipment status data



Consolidation of all data within the intermodal supply chain

Real-time data

Harmonization of the electronic interfaces

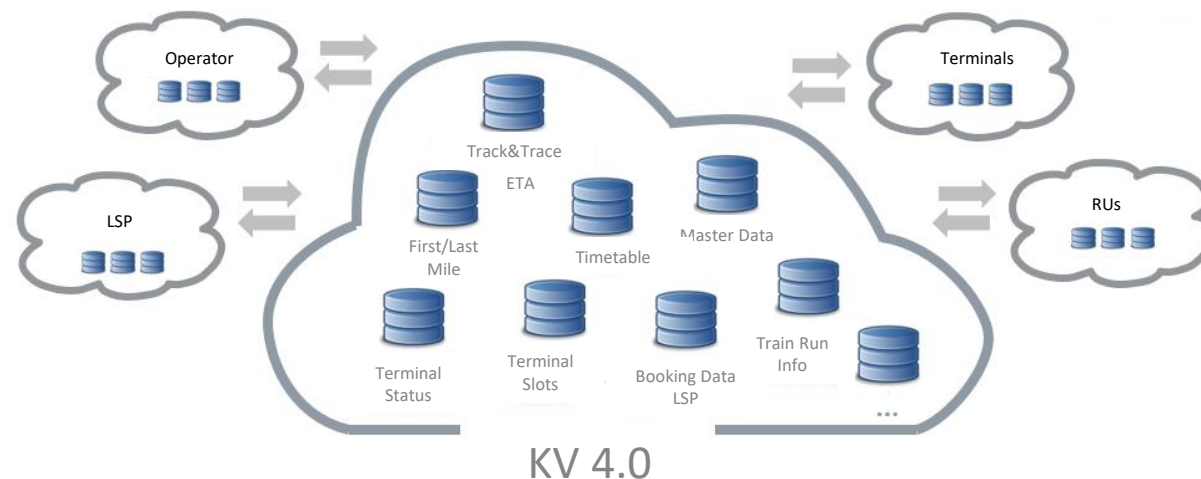


Data available and usable for all parties involved

Supply chain transparency

# KV4.0 Data Hub

- > The KV4.0 Data Hub is the result of a Project implemented successfully in 2017-2020 and financed by German Ministry of transport
- > The KV4.0 Data Hub is an integrated data hub increasing transparency across the entire intermodal transport chain
- > All participating partners will provide the relevant order and transport-related information based on standard XML EDIGES format)



# KV4.0 Project Partners

## Logistic Service Providers

**HOYER**  
WHEN IT MATTERS

Hoyer GmbH, Hamburg

*paneuropa*  
smart transport solutions

Paneuropa GmbH, Vechta

**BERTSCHI**

Bertschi AG, Dürrenäsch

## Intermodal Operators

**kombi  
verkehr**

Kombiverkehr KG, Frankfurt

**HUPAC**

Hupac Intermodal SA, Chiasso

## Railway Undertaking

**DB**

DB Cargo AG, Mainz



**SBB Cargo International**

SBB Cargo Deutschland GmbH, Duisburg

**Lokomotion**  
Gesellschaft für Schienentraktion mbH

München

## Intermodal Terminals

**KTIL**  
Kombi-Terminal  
Ludwigshafen

**STARK** im  
Kombinierten  
Verkehr

**HUPAC**

Hupac SpA, Busto

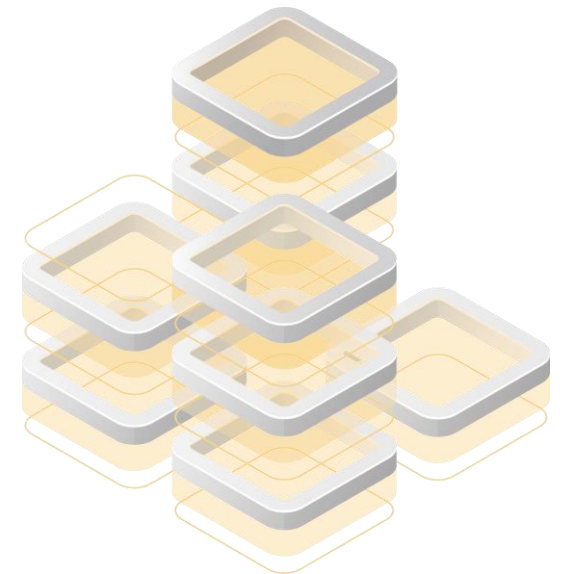
 DX Intermodal GmbH Shareholder

Technical Partner



# What is the KV4.0 Data Hub?

- No platform (Web View) but an **electronic data hub**
- **Central distributor** for all messages of the intermodal supply chain
- Communication with the hub via **standard REST API** (URL, user, password and token)
- **PUSH** procedure for delivering data to the hub
- **PULL** procedure for collecting messages from the hub
- Uniform XML standard for data exchange: **EDIGES 4.1**
- **Validation rules** for conformity with the current EDIGES format
- Only the **sender determines the respective recipients** of the data
- **No storage** of data on the hub





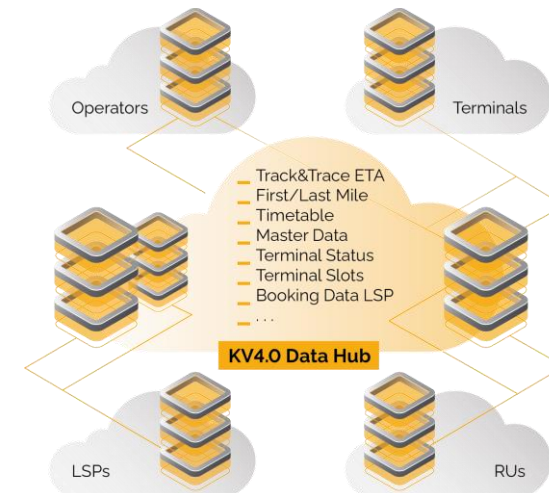
# Main benefits for the CT shareholders

## Main Benefits

- Data **transparency** from the booking to the collection of the loading unit
- Transport units **booked through a single interface** for the LSP
- Optimized **forecast data** (ETA and ETP) in the event of irregularities
- Up-to-date **timetable data** of all connected operators
- Planning of the **terminal slots** is improved by the timely knowledge of planned shipment
- Improved **allocation of truck arrivals** and departures in the terminal

## Main Characteristics

- **Single point for access** to transport-relevant data of combined transport
- **Optimized data exchanges costs** thanks to a single interface
- Easy access via **standardized interfaces** with **EDIGES**
- Modern **cloud-based** solution



# Current status of DXI activities

THESE EDIGES MESSAGES ARE PROVIDED BY KOMBIVERKEHR

- Foundation of the **company DX Intermodal GmbH** (October 2022)
- Completion of the KV4.0 Data Hub **productive version** (February 2023)
- Already more than 25 **commercial users** (since March 2023)

## FORWARDERS

<b>CT</b> Commercial timetable	<b>S10/11</b> Booking / cancellation	<b>RS</b> Technical response	<b>S20</b> Unit delivered
<b>S25/26</b> Unit loaded/unloaded	<b>S30</b> Train departure	<b>TRI</b> Train running information	<b>S37</b> Estimated time of pick up
<b>S38</b> Train arrival	<b>S40</b> Ready to pick up	<b>S45/46</b> Delivered at gateway	<b>DM</b> Disruption message
<b>S50/51</b> Picked up			

## TERMINALS & RAILWAY UNDERTAKINGS

<b>OT</b> Operational timetable	<b>TM</b> Terminal master data
<b>ND</b> Network disruption	<b>S23/24</b> Wagon in / out train composition
<b>S25/26</b> Unit loaded / unloaded	<b>S32</b> Consignment note
<b>S80</b> Terminal slot	



# Thank You

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